

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An interface device, comprising:
an Ethernet frame and a SONET frame convertible interface device, wherein a 1st holding part with a specific VLAN identifier of said Ethernet frame and a STS path identifier of said SONET frame are placed opposite each other; and
a plurality of multiplexing parts, each of which is established corresponding to STS path identifier respectively and each of which is operable to multiplex an Ethernet frame having said specific VLAN identifier corresponding to said specific STS path identifier that is held by said 1st holding part among a plurality of input Ethernet frame VLAN identifiers;
wherein said each the multiplexing part establishes a filtering part that passes through Ethernet frames having said specific VLAN identifier among a plurality of Ethernet frames and a 1st encapsulating part that encapsulates information data contained in an Ethernet frame that passes through a filtering part, and said filtering part breaks down the frame when a VLAN identifier of the frame is different from any one of the VLAN identifiers that is held by said holding part.
2. (Previously Presented) The interface device according to claim 1, wherein the multiplexing part establishes an ID inserting part that inserts an opposing SONET transmission device STS path identifier that opposes an Ethernet frame that is encapsulated by a 1st encapsulating part.
3. (Currently Amended) A SONET multiplex isolation device, wherein a plurality of the multiplexing parts, each of which is established corresponding to a STS path identifier respectively and each of which is operable to multiplex an Ethernet frame, establishes a flag inserting part that inserts a flag that indicates an input side Ethernet frame transmission fault in an Ethernet frame that is encapsulated by a 1st encapsulating part and wherein a filtering part

breaks down the frame when a VLAN identifier of the frame is different from any one of the VLAN identifiers that is held by a holding part.

4. (Currently Amended) A transmission system, comprising:

a plurality of SONET multiplex isolation devices having Ethernet interface devices and SONET interface devices established, wherein a 1st SONET multiplex isolation device among the plurality of SONET multiplex isolation devices establishes a 1st holding part with a Ethernet frame specific VLAN identifier and a SONET frame specific STS path identifier placed opposite each other;

a plurality of multiplexing parts, each of which is established corresponding to STS path identifier respectively and each of which is operable to multiplex that multiplexes a plurality of Ethernet frames having a specific VLAN identifier corresponding to the specific STS path identifier that is held in the 1st holding part among an input plurality of Ethernet frame VLAN identifiers, along with a 2nd SONET multiplex isolation device among the plurality of SONET multiplex isolation devices with a 2nd holding part with the SONET frame specific STS path identifier and Ethernet frame specific VLAN identifier placed opposite each other; and

an isolation part that imparts a VLAN identifier corresponding to the STS path identifier that is held in the 2nd holding part to each extracted Ethernet frame by extracting each Ethernet frame and the SONET frame STS path identifier from a frame originating in the SONET frame;

wherein the 1st SONET multiplex isolation device multiplexing part inserting a flag that indicates an input side Ethernet frame transmission fault along with the 2nd SONET multiplex isolation device isolation part that prevents output of an Ethernet frame that is transmitted by detection of the flag from a frame originating in the SONET frame;

a filtering part that breaks down a frame when a VLAN identifier of the frame is different from any one of the VLAN identifiers that is held by the holding part.

5. (Currently Amended) A frame transmission method for frame transmission for an Ethernet frame and SONET frame, comprising:

inputting a plurality of Ethernet frames having a specific VLAN identifier among the plurality of Ethernet frames passes through to be multiplexed; and

breaking down a frame using a filtering part when a VLAN identifier of the frame is different from any one of the VLAN identifiers that is held by the holding part; and
establishing a plurality of multiplexing parts corresponding to a STS path identifier, each
of which is operable to multiplex an Ethernet frame.